Having recently attended the copyright colloquium, I noticed particularly the conflict over the right of first sale as it applies to licensing agreements, with some expressing concerns over the conflict between attempting to unweave aspects of contract law versus products that require firmware updates, for example routers, printers, and game consoles, creating a situation where property is never actually owned by the consumer. I believe an obvious compromise solution is to set a 'flagpoint' at the time of purchase, setting how first sale doctrine applies, and then future updates can be negotiated in turn (and, if necessary create further flagpoints each time) as described below. And that this is necessarily because of the unique situation of copyright law intersecting the results of contract law, in that it is illegal to break the encryption on the product even if the license does not apply to the consumer in a given situation.

Part of the problem under consideration is a discrepancy between the terms of the license agreement and the actual behavior of the product. Producers and consumers will oftentimes renege on the license agreement terms with little or no recompense to the other; for example, locking out via encryption legitimate use of a DVR, such as time-shifting, or DRM servers going down or offline permanently on purchased games, or updates invalidating features a game console that applied when purchased, etc. (The packaging on my own printer's ink cartridge body recites text claiming that the ink contains software that is copy-written and thus cannot be refilled without violating the 'license' to use the ink. A notation, I will note, is not on the ink's packaging anywhere.)

Further, a consumer is not allowed to break any encryption imposed on the device, even if the encryption is blocking content use that has been legally surrendered under the terms of the license agreement. This combination creates the current unfortunate circumstance where a given product can promise a number of uses in its license, however these uses are 'locked out' to the user via its own security measures; alternatively, the user can illegally 'unlock' the object, allowing them access to more content, including more than they have lawfully paid for. This causes this conflict to become a war of hacking brute force, making the license itself irrelevant, and only hacking ability is in contest; as the device's promised function can no longer de facto be performed without breaking its encryption, and, if the encryption is illegally broken, nothing is then prevented from the user. Such all-or-nothing behavior breaks entirely the correlation between what is legally conveyed by the license and the actual physical use of the object, as the license may state that the user may perform action X but not Y, the creator reneges on the X and the user reneges on the Y. This does not accurately represent an 'agreement'.

My proposed solution in such a situation, is that a person purchasing or licensing a copy-written object, such as a printer, router, or game disk, sets a flagpoint at that exact moment in time and the first sale doctrine can continue to apply to all aspects of the object such as that out-of-the-box printer or router may continue to be used under the terms of that original license agreement indefinitely forward in time, as per the features and price noted in the original license agreement and presented by the product, including implied warranties for a particular purpose. If an update that alters the terms of the license agreement or features of the product, the user must actively approve a new license agreement, or if disapproved, must *continue to operate* under the terms of the old license agreement under the first sale doctrine, without allowing the copyright-holder to summarily diminish the product in violation of those original terms.

This prevents not only 'lost works' but also 'whitemail' where the a product has its decryption summarily suspended and more money or other user behavior, such as the installation of spyware, is required to continue using the product, which was not present in the original license, and the user must, legally, either concede to the update, whatever it is, on the spot, or write off the already sunk costs into the object, which, in the cases of some object with substantial 'purchased' libraries, can create a severe impediment when combined with the surprise nature of the whitemail. This tends to lead to illegal behavior, as the user tries to return their purchased device back to its original state and further emboldens a community devoted to other illegal behavior, as once that threshold of legality is crossed, it creates the illusion that "if they broke the agreement why can't !?"

Additionally, an alternative policy change would be to allow users to break an encryption such as is consistent with the specified license of the product, so that the user may legally return the device to its legal state *but no further*. This would allow users to brute-force for themselves recover of any first-sale doctrine rights if they are illegally restricted by the manufacturer in violation of their original license. This solution also allows the user to recover a device that is out-of-the-box nonfunctional for its purported purpose.

Either solution restores the balance where two parties mutually agree on the proper use of the object without having either party gain unfair advantage over the other by yanking portions of the agreement away by brute force instead of via legal channels, by not allowing the decryption be a contest of each side trying to get away with as much as they can, and enforcing, both ways, the terms of the agreement. This solution instead restores the correlation between the device's behavior and the contract specifying the device's behavior; users can continue using the device as intuition would suggest without having a continual bickering, hacking war between the content seller and producer continuously trying to un-rent or re-rent the device when an agreement is already present. This is not a military conflict to be solved via force, but a negotiation, and the law should use that attitude of friendly conferencing between buyers and sellers, instead of attempting to enact a lopsided legal construct that cannot support the desired goal.

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